[SEQ ID NO: 6] SEQ ID NO: 9, [SEQ ID NO: 11,] SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16 and complements thereof.

- 38. (Twice Amended) An isolated gene which codes for a BS200 protein having the amino acid sequence with at least 50% identity with SEQUENCE ID NO 31.
- 39. (Twice Amended) An isolated gene comprising DNA <u>having at least 50%</u> identity with SEQUENCE ID NO 15 and SEQUENCE ID NO 16, or complements thereof.

Please add new claim 49.

49. (New) A purified polynucleotide consisting of the polynucleotide of SEQ ID NO: 6.

REMARKS

Claims 11-14, 39 and 45-48 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Examiner states that the claims fail to define the metes and bounds of the claimed invention because "specifically binds to" is a recited property of the polynucleotide, but it is not defined in the claims or in the specification. Therefore, in an effort to expedite prosecution, Applicant has deleted the "specifically binds" language. Instead, Applicant has substituted "percent identity" language in order to better define the polynucleotides of the instant invention.

Further, in an effort to comply with 35 U.S.C. § 112, Applicant submits the software manual to the Wisconsin Sequence Analysis program, Version 8, publicly available from Genetics Computer Group, Madison, WI, as Exhibit A. Support for this submission is found on page 12, beginning on line 26. The manual provides the algorithm, parameters, parameter values and other information necessary to, accurately and consistently, calculate the percent identity. This manual indicates on pages 5-21,

inter alia, that the software used the local homology algorithm of Smith and Waterman (Advances in Applied Mathematics 2; 482-489 (1981)).

Claims 11-14 and 45-48 are rejected under 35 U.S.C. § 102(a or b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Strausberg (Accession No. AA639700, EST database, 1993) for SEQ ID NO: 2; Hillier, et al., (Accession No. AA256868, EST database, 1996) and Strausberg (Accessioin No. AA639700, EST database, 1993) for SEQ ID NO: 3; Strausberg (Accession No. AA228353 and AA228426, EST database, 1996) and Hillier, et al., (Accession No. H05698, EST database, 1995) for SEQ ID NO: 6; Matsubara, et al., (AC T25603 (Geneseq) WO 95/14772) for SEQ ID NOS: 9, 15 and 16; Hillier, et al., (Accession No. W79647, EST database, 1992) for SEQ ID NO: 11. The Examiner states that each of the references discloses a polynucleotide sequence that "specifically binds", interpreted as "hybridizes", to a polynucleotide of claim 11 identified by its SEQ ID NO: as shown in the sequence search printouts. Based on the amendments to the aforementioned claims, which delete the "specifically binds" language and further deletes SEQ ID NOS. 7, 9, 11 and 12, this rejection is deemed moot.

The Examiner also rejects claim 39 under 35 U.S.C. § 102(a or b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Matsubara, *et al.*, (AC T25603 (Geneseq) WO 95/14772), stating that the reference discloses a polynucleotide sequence that "specifically binds", interpreted as "hybridizes", to a polynucleotide of claim 39 identified by its SEQ ID NO: (15 or 16). Based on the aforementioned amendments to the claims deleting "specifically binds" language, this rejection is also deemed moot.

It is appreciated that claim 38 is allowed, as indicated by the Examiner. The Examiner further states that SEQ ID NOS: 1-3, 9, 14-16 and 31 are free of the prior art, but that SEQ ID NO: 6 would be allowable if claimed in closed language, i.e., "consisting of" Therefore, Applicant has added new claim 49 which covers SEQ ID NO 6 using the suggested "consisting of" language.

The Examiner states that SEQ ID NO: 11 has a single mismatch at nucleotide 62 with the EST of Hillier, et al., (1992). Therefore, SEQ ID NO: 11 has been deleted from the claims.

09/110,720 6130.US.P1 Amend. & Resp. AF

CONCLUSION

In view of the aforementioned amendments and remarks, the aforementioned application is in condition for allowance and Applicant requests that the Examiner withdraw all outstanding objections and rejections and to pass this application to allowance.

Respectfully submitted,

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